

PTO 09-0367

CC=JP DATE=19940510 KIND=A
PN=06128121

COSMETIC PREPARATION
[Keshoryo]

Saori Yamashita

UNITED STATES PATENT AND TRADEMARK OFFICE
Washington, D.C. October 2008

Translated by: FLS, Inc.

| | | |
|------------------------------|--------|---|
| PUBLICATION COUNTRY | (19): | JP |
| DOCUMENT NUMBER | (11): | 06128121 |
| DOCUMENT KIND | (12): | A |
| | (13): | PUBLISHED UNEXAMINED APPLICATION (Kokai) |
| PUBLICATION DATE | (43): | 19940510 |
| PUBLICATION DATE | (45): | |
| APPLICATION NUMBER | (21): | 04277540 |
| APPLICATION DATE | (22): | 19921015 |
| INTERNATIONAL CLASSIFICATION | (51): | A61K 7/00, 7/06, 7/48, 35/78 |
| INVENTOR | (72): | YAMASHITA, SAORI |
| APPLICANT | (71): | SANSHO SEIYAKU K.K. |
| TITLE | (54): | COSMETIC PREPARATION |
| FOREIGN TITLE | [54A]: | Keshoryo |

[Claims]

/2*

[Claim 1] A cosmetic preparation containing an *Aspalathus linearis* extract.

[Detailed Description of the Invention]

[0001] [Field of Industrial Application]

The present invention pertains to cosmetic preparations; more specifically, it pertains to cosmetic preparations that contain *Aspalathus linearis* extracts as the active ingredient and that has the effect of providing moisture to the skin and hair and preventing skin aging.

[0002] [Related Art]

The skin, unlike other organs, is susceptible to the influences of the external world, that is, those of physical factors, such as sunlight, temperature, humidity, and so forth, or those of chemical factors, such as detergents and the like. Among them, the influence of ultraviolet radiation contained in sunlight on the skin is especially serious, and it is commonly known to cause skin-aging phenomena, such as wrinkling, pigmentation, skin drying, and so forth. For the purpose of preventing these, cosmetic preparations containing ultraviolet absorbing agents, moisturizing agents, cell activators, antioxidants, or the like have been used heretofore, but they have not yielded satisfactory results. Moreover, they have undesirable side effects,

* Number in the margin indicates pagination in the foreign text.

such as photosensitization and the like, on the skin, thus presenting problems in use.

[0003] Hair is readily damaged by the ultraviolet radiation of sunlight, heat from driers used daily, or such treatments as permanents, hair dyeing, and the like, and shows the adverse effects of these on its moisture-retaining property, resilience, and strength. Typical examples of these adverse effects are such phenomena as dryness of the hair, loss of moisture and luster, increase in split ends, difficulty in combing the hair, and so forth. As a measure against such hair damage, hair protective agents having a high oil content have been used to prevent the moisture-retaining property from decreasing, but these agents are sticky and, as such, have extremely poor sensory performance, and their effects are also not satisfactory.

[0004] [Problems that the Invention Intends to Solve]

In view of the aforesaid situation, the present inventor conducted extensive research to find a cosmetic preparation that prevents skin aging caused by ultraviolet radiation or a hair protective agent that has good sensory performance and an excellent moisturizing effect and, as a result, discovered that an *Aspalathus linearis* extract has an excellent active oxygen-eliminating effect and moisturizing effect and is also highly safe for the skin. As a result of further research, the inventor found that the application of a cosmetic preparation containing an *Aspalathus linearis* extract to the skin has effects against skin aging, such as wrinkling, pigmentation,

and so forth, caused by ultraviolet radiation, and its application to the hair does not make the hair sticky and, moreover, has the effect of enhancing the hair-moisturizing effect. Based on this finding, the present invention was achieved.

[0005] [Means For Solving The Problems]

Namely, the present invention provides a highly safe cosmetic preparation that is obtained by blending an *Aspalathus linearis* extract in an external-use base that is acceptable for skin application or hair application.

[0006] [Detailed Explanation of the Invention]

Aspalathus linearis is an alkaline plant that grows in acidic dry soil and is a coniferous tree of the family Pinaceae that grows only in South Africa. It grows to the height of 80 cm or so in about 3 years, and an *Aspalathus linearis* extract obtained by cutting its leaves finely, by heating and fermenting them, and extracting the resulting product has been used in South Africa as a secret elixir for longevity, but its use as a raw material for cosmetic preparations, especially as an ingredient for skin or hair cosmetic preparations, has not been known.

[0007] The active ingredient of the present invention can be generally obtained by extracting *Aspalathus linearis* powder or heated and fermented *A. linearis* with water, an organic solvent, or a mixture of water and an organic solvent and subsequently purifying the extracted product by a known method. The extraction solvent can be

selected from, for example, organic solvents, such as ethanol, methanol, and the like; water; and mixtures of water and organic solvents, but the use of alcohol or water is preferable when the efficacy of the ingredient is taken into consideration. The method of purification that follows the extraction is not specifically limited, and the present invention can employ any publicly known method, including filtration and fractionation.

[0008] Because the *Aspalathus linearis* extract thus prepared has an excellent active oxygen-eliminating effect and moisturizing effect, the application of a cosmetic preparation containing this to the skin is effective for wrinkles and pigmentation, which are skin aging phenomena caused by harmful ultraviolet radiation, and its application to the hair is effective for hair protection for damaged hair [sic]. The cosmetic preparation of the present invention is prepared by blending the aforesaid active ingredient in a known formulation that is acceptable for the skin or hair application, and its blending quantity is usually from 0.001 to 30.0 % by weight, preferably from 0.01 to 20.0 % by weight, of the cosmetic preparation as a whole.

[0009] In formulating the cosmetic preparation of the present invention, conventionally-used various known active ingredients may optionally be incorporated as necessary in addition to an *Aspalathus linearis* extract, examples of such known ingredients including capillary vasodilators, such as carpronium chloride, cepharanthine, vitamin E, vitamin E nicotinate, nicotinic acid, nicotinamide, benzyl

nicotinate, ginger tincture, chili tincture, and the like; algefacients, such as camphor, menthol, and the like; antimicrobial agents, such as hinokitiol, benzalkonium chloride, undecylenic acid, and the like; anti-inflammatory agents, such as lysozyme chloride, glycyrrhizin, allantoin, and the like; complexion-lightening agents, such as ascorbic acid, arbutin, kojic acid, and the like; and various extracts of animal, plant, or microorganism origin, such as Swertia japonica extract, garlic extract, carrot extract, Scutellaria root extract, rosemary extract, aloe extract, gourd extract, ginkgo extract, elderberry extract, placenta extract, liver extract, lactobacillus culture extract, and the like.

[0010] As noted earlier, the known formulation of the cosmetic composition means any formulation that can be applied externally, and some examples thereof include, as skin-use preparations, cataplasm, plaster, paste, cream, ointment, aerosol, emulsion, lotion, milky lotion, essence, pack, gel, powder, foundation, suncare, bath salt, /3 soap, and so forth and, as hair-use preparations, shampoo, rinse, hair tonic, hair liquid, hair spray, hair foam, and so forth.

[0011] For the aforesaid cosmetic composition, in addition to known active ingredients, it is, of course, possible to concomitantly use base ingredients, such as surface-active agents, oils and fats, and so forth, and various known additives, such as moisturizing agents, thickeners, preservatives, antioxidants, ultraviolet absorbing or

scattering agents, chelating agents, pH regulators, perfumes, colorants, and the like, as necessary.

[0012] Examples of the moisturizing agents include polyhydric alcohols, such as glycerin, propylene glycol, 1,3-butylene glycol, sorbitol, mannitol, polyethylene glycol, dipropylene glycol, and the like; NMF [natural moisturizing factor] ingredients, such as amino acid, sodium lactate, sodium pyrrolidone carboxylate, and the like; water-soluble macromolecular substances, such as hyaluronic acid, collagen, elastin, chondroitin sulfate, dermatan sulfate, fibronectin, ceramide, heparin analog, chitosan, and so forth.

[0013] Examples of the thickeners include natural macromolecular substances, such as sodium arginate, xanthan gum, aluminum silicate, quince seed extract, tragacanth gum, starch, and the like; semisynthetic macromolecular substances, such as methyl cellulose, hydroxyethyl cellulose, carboxymethyl cellulose, soluble starch, cationized cellulose, and the like; and synthetic macromolecular substances, such as carboxyvinyl polymer, polyvinyl alcohol, and the like.

[0014] Examples of the preservatives include benzoic acid, salicylate, sorbic acid, dehydroacetate, p-hydroxybenzoate ester, 2,4,4'-trichloro-2'-hydroxydiphenyl ether, 3,4,4'-trichlorocarbanilide, benzalkonium chloride, hinokitiol, resorcin, ethanol, and the like.

[0015] Examples of the antioxidants include dibutylhydroxytoluene, butylhydroxyanisole, propyl gallate, ascorbic acid, and the like.

[0016] Examples of the ultraviolet absorbing agents include 4-methoxybenzophenone, octyl dimethyl paraaminobenzoate, ethylhexyl paramethoxycinnamate, titanium oxide, kaolin, talc, and the like.

[0017] Examples of the chelating agents include ethylenediamine tetraacetate, pyrophosphate, hexametaphosphate, citrate, tartaric acid, gluconic acid, and the like, and examples of the pH regulators include sodium hydroxide, potassium hydrogenphosphate, and the like.

[0018] [Working Examples]

The following will present working examples of the present invention and test examples for explaining the effects of the invention, but these should not be construed to limit or restrict the present invention.

[0019] <Production Example 1>

To 400 g of an *Aspalathus linearis* dried powder (a product that had been heated and fermented) was added 19.6 Kg purified water, and extraction was carried out in 100 °C boiling water for 1 hour. After the product thus obtained was filtered, substances having a molecular weight of 50,000 or larger were eliminated from it by ultrafiltration, thereby obtaining an *Aspalathus linearis* extract.

[0020] <Production Example 2>

To 400 g of an *Aspalathus linearis* dried powder was added 19.6 Kg purified water, and extraction was carried out in 100 °C boiling water for 1 hour. After the product thus obtained was filtered, substances

having a molecular weight of 10000 or larger were eliminated from it by ultrafiltration, thereby obtaining an *Aspalathus linearis* extract.

[0021] <Production Example 3>

To 400 g of an *Aspalathus linearis* powder was added 19.6 Kg of a 50 % ethanol aqueous solution, and extraction was carried at room temperature for a whole day. After the product thus obtained was filtered, substances having a molecular weight of 50000 or larger were eliminated from it by ultrafiltration, thereby obtaining an *Aspalathus linearis* extract.

[0022] <Production Example 4>

To 4 Kg of an *Aspalathus linearis* dry powder was added 16 Kg of a 50 % ethanol aqueous solution, and extraction was carried out at room temperature for a whole day. After the product thus obtained was filtered, it was diluted to 1:10 with purified water. Thereafter, it was stored at 5 °C for 7 days, and the precipitates were eliminated, thereby obtaining an *Aspalathus linearis* extract.

[0023] <Production Example 5>

To 400 g of an *Aspalathus linearis* dried powder was added 19.6 Kg purified water, and the pH was adjusted to 2.5, under which condition extraction was carried out in 100 °C boiling water for 3 hours. After the product thus obtained was adjusted to pH 5.5 and filtered, substances having a molecular weight of 10000 or larger were eliminated from it by ultrafiltration, thereby obtaining an *Aspalathus linearis* extract.

[0024] <Production Example 6>

To 400 g of an *Aspalathus linearis* dried powder (a product that had been heated and fermented) was added 19.6 Kg purified water, and extraction was carried out at 100 °C for 1 hour. The obtained liquid was filtered, thereby obtaining an *Aspalathus linearis* extract.

[0025] <Test Example 1> Active oxygen-eliminating effect

Test Method

a. SOD [superoxide dismutase] activity measurement method

To 2.4 ml of a 0.05 M potassium phosphate buffer (pH 7.8) were added 0.1 ml each of the following reagents: 3 mM xanthine, 3 mM disodium edetate, 0.15 % bovine serum albumin, and 0.75 mM nitroblue tetrazolium. To this was added 0.1 ml of an extract that had been diluted to an appropriate concentration with purified water, and the mixture was left standing at 25 °C for 10 minutes, after which 0.1 ml xanthine oxidase (approximately 0.1 U/ml) was added thereto, and the O. D. [optical density] 560 nm was measured at 25 °C after the passage of 10 minutes.

b. Activity calculation

Supposing that the O. D. 560 nm (indicating O_2^- quantity) of a control to which the sample to be evaluated was not added was 100 %, the dilution factor that inhibited this by 50 % was found, and the SOD activity of the evaluated sample was calculated with following equation.

SOD activity (1 U/ml) = Dilution factor that caused 50 % inhibition
*30 (coefficient)

[0026] [Measurement 1]

/4

When the extract prepared in Production Example 1 was measured according to the aforesaid measurement method, the SOD activity value was found to be 1200 U/ml.

[0027] [Measurement 2]

The extracts of the present invention obtained in Production Example 1 through 6 were individually blended in lotion bases of the following formulation in a quantity of 10 %, and the SOD activities in the resulting preparations were measured. The results are shown in Table 1. In the formulation, the blending proportion (proper amount) of purified water means the numeric value that brings the total to 100 % by weight.

[0028]

| | (% by weight) |
|--|---------------|
| 1. Polyoxyethylene hydrogenated castor oil (60 E.O.) | 8.00 |
| 2. Ethanol | 15.00 |
| 3. Behenyl alcohol | 1.00 |
| 4. p-hydroxybenzoate ester | 0.10 |
| 5. Citric acid | 0.10 |
| 6. Sodium citrate | 0.30 |
| 7. 1,3-butylene glycol | 4.00 |
| 8. Disodium edetate | 0.01 |
| 9. Purified water | Proper amount |

[0029]

TABLE 1

| Skin Lotion | SOD Activity (U/ml) |
|-------------------------------------|---------------------|
| Base | 0 |
| Formulation of Production Example 1 | 122 |
| Formulation of Production Example 2 | 81 |
| Formulation of Production Example 3 | 223 |
| Formulation of Production Example 4 | 312 |
| Formulation of Production Example 5 | 158 |
| Formulation of Production Example 6 | 416 |

[0030] <Test Example 2> Moisturizing effect

Test Method

Using a high-frequency impedance meter (a product of IBS Co.: Model IB-355), the moisturizing property of a 0.5 % *Aspalathus linearis* extract (Production Example 1) was investigated, with purified water as the control. For the purpose of comparing it against other moisturizing agents, a 0.5 % solution of sodium hyaluronate, which is a highly moisturizing agent, was used as a comparison.

[0031] Measurement Method

To the inner forearm of a human being, a test sample was applied (2 cm * 2 cm) and, 30 seconds later, wiped off with gauze quickly and lightly, and the conductance of the skin was measured every 30 seconds over the course of following 10 minutes (measuring conditions: room temperature at which the measurements were taken, 20 °C; humidity, 60 %; and number of measurements, n=10).

[0032] Test Results

The results are shown in Fig. 1. In the results shown in Fig. 1, a higher conductance means a higher moisturizing property, and the *Aspalathus linearis* extract of the present invention was confirmed to be an excellent moisturizing agent.

[0033] <Test Example 3> Use result test

Use result test with skin application

A use result test was conducted with a skin lotion (Formulation Example 8, to be described later) that contained the *Aspalathus linearis* extract of the present invention.

[0034] The test was conducted by 50 female panelists with dry skin, who were randomly divided into two groups of 25 people each. The first group was asked to use the skin lotion of Formulation Example 8 (present invention), and the second group the skin lotion of Formulation Example 8 from which *Aspalathus linearis* alone was omitted (the base: Comparative Example 1). These two groups of panelists were asked to apply an appropriate amount of the skin lotions to the face twice daily, in the morning and evening, after washing the face and to continue this for a month. Then, they evaluated the effectiveness of the skin lotions as a "remedy for wrinkles and rough dry skin." The /5 degree of remedial effect was graded in four levels--"highly effective," "effective," "somewhat effective," and "no change"--compared with the condition prior to use. The results are shown in Table 2.

[0035]

TABLE 2

| Skin Wrinkling, Roughness | Highly Effective | Effective | Somewhat Effective | No Change | Efficacy Rate (%) |
|------------------------------|---------------------|-----------|-----------------------|-----------|----------------------|
| Present Invention | 2 | 10 | 5 | 8 | 48 |
| Comparative Example 1 | 0 | 0 | 5 | 20 | 0 |

As seen in the foregoing, the skin lotion that had the extract of the present invention as the active ingredient had an excellent remedial effect for wrinkles and rough dry skin.

[0036] Use effect test with hair application

A use result test was conducted with a hair tonic (Formulation Example 11, to be described later) that contained the *Aspalathus linearis* extract of the present invention.

[0037] The test was conducted by 50 male panelists, who were randomly divided into two groups of 25 people each. The first group was asked to use the hair tonic of Formulation Example 11 (present invention), and the second group the hair tonic of Formulation Example 11 from which *Aspalathus linearis* alone was omitted (the base: Comparative Example 1). These two groups of panelists were asked to rub an appropriate amount of the hair tonic into their heads twice daily, in the morning and evening, and to continue this for a month. Then, they evaluated the effectiveness of the hair tonics for "suppleness and moisture retention of the hair." The degree of remedial effect was graded in four levels--"highly effective,"

"effective," "somewhat effective," and "no change"--compared with the condition prior to use. The results are shown in Table 3.

[0038]

TABLE 3

| Suppleness and Moisture Retention of the Hair | Highly Effective | Effective | Somewhat Effective | No Change | Efficacy Rate (%) |
|---|------------------|-----------|--------------------|-----------|-------------------|
| Present Invention | 5 | 15 | 3 | 2 | 80 |
| Comparative Example 1 | 0 | 0 | 7 | 18 | 0 |

[0039] As seen in the foregoing, the hair tonic that had the extract of the present invention was highly effective for making the hair supple and moisturizing the hair.

[0040] The following will present some formulation examples of the cosmetic preparations in which the *Aspalathus linearis* extracts of the present invention were blended. In the formulation examples, the term "proper amount" means the amount that brings the total to 100 % by weight.

[0041] <Formulation Example 1> Cream

| | (% by weight) |
|--|---------------|
| 1. Polyethylene glycol monostearate (40 E.O.) | 2.00 |
| 2. Self-emulsifying glycerin monostearate | 5.00 |
| 3. Stearic acid | 5.00 |
| 4. Behenyl alcohol | 1.00 |
| 5. Liquid paraffin | 10.00 |
| 6. Glyceryl trioctanoate | 10.00 |
| 7. <i>Aspalathus linearis</i> extract (the one obtained in Production Example 1) | 10.00 |
| 8. p-hydroxybenzoate ester | 0.20 |
| 9. 1,3-butylene glycol | 5.00 |
| 10. Disodium edetate | 0.01 |
| 11. Vitamin E | 0.005 |
| 12. Purified water | Proper amount |

(Preparation Method)

- A. Ingredients 1 through 7 were heated and dissolved.
- B. Ingredients 8 through 12 were heated and dissolved.
- C. B was added to A, and the mixture was emulsified, stirred, and cooled.
- D. After C was cooled, it was packed in a container and inspected, thus obtaining a product.

[0042] <Formulation Example 2> Cream Pack /6

| | (% by weight) |
|--|---------------|
| 1. Polyethylene glycol monostearate (40 E.O.) | 2.00 |
| 2. Self-emulsifying glycerin monostearate | 5.00 |
| 3. Stearic acid | 5.00 |
| 4. Behenyl alcohol | 0.50 |
| 5. Squalane | 15.00 |
| 6. Cetyl octanoate | 5.00 |
| 7. Jojoba oil | 1.00 |
| 8. p-hydroxybenzoate ester | 0.20 |
| 9. 1,3-butylene glycol | 5.00 |
| 10. Disodium edetate | 0.01 |
| 11. Aspalathus linearis extract (the one obtained in Production Example 2) | 0.01 |
| 12. Purified water | Proper amount |

(Preparation Method)

- A. Ingredients 1 through 7 were heated and dissolved.
- B. Ingredients 8 through 12 were heated and dissolved.
- C. B was added to A, and the mixture was emulsified, stirred, and cooled.
- D. After C was cooled, it was packed in a container and inspected, thus obtaining a product.

[0043] <Formulation Example 3> Lotion

| | (% by weight) |
|---|---------------|
| 1. Polyoxyethylene hydrogenated castor oil (60 E.O.) | 8.00 |
| 2. Ethanol | 15.00 |
| 3. Mink oil | 1.00 |
| 4. p-hydroxybenzoate ester | 0.10 |
| 5. Citric acid | 0.10 |
| 6. Sodium citrate | 0.30 |
| 7. 1,3-butylene glycol | 4.00 |
| 8. Disodium edetate | 0.01 |
| 9. Aspalathus linearis extract (the one obtained in Production Example 3) | 15.00 |
| 10. Purified water | Proper amount |

(Preparation Method)

- A. Ingredients 1 through 10 were uniformly stirred and dissolved.
- B. A was packed in a container and inspected, thus obtaining a product.

[0044] <Formulation Example 4> Mousse

| | (% by weight) |
|---|---------------|
| 1. N-methacryloylethyl-N,N-dimethyl ammonium · α -N-methylcarboxybetaine · butyl methacrylate copolymer (30 %) | 3.50 |
| 2. Poxoxyethylene cetyl ether (10 E.O.) | 0.15 |
| 3. Poxoxyethylene cetyl ether (2 E.O.) | 0.15 |
| 4. Ethanol | 13.00 |
| 5. Disodium edetate | 0.01 |
| 6. Aspalathus linearis extract (the one obtained in Production Example 3) | 3.00 |
| 7. Swertia japonica extract | 0.10 |
| 8. Purified water | Proper amount |

(Preparation Method)

After the aforesaid ingredients were stirred and dissolved homogeneously, the mixture was dispensed in a heat-resistant container, into which dimethyl ether and liquefied petroleum gas were packed with

application of pressure, and an injector was attached to the container and sealed, thereby obtaining a finished product.

[0045] <Formulation Example 5> Emulsion

| | (% by weight) | |
|--|---------------|-----------|
| 1. Polyoxyethylene sorbitan monostearate (20 E.O.) | 1.00 | |
| 2. Polyoxyethylene sorbitol tetraoleate (60 E.O.) | 0.50 | |
| 3. Oleophilic glycerin monostearate | 1.00 | <u>/7</u> |
| 4. Stearic acid | 0.50 | |
| 5. Behenyl alcohol | 0.50 | |
| 6. Avocado oil | 4.00 | |
| 7. Glyceryl trioctanoate | 4.00 | |
| 8. Ascorbic aid | 0.10 | |
| 9. p-hydroxybenzoate ester | 0.20 | |
| 10. 1,3-butylene glycol | 5.00 | |
| 11. Xanthan gum | 0.14 | |
| 12. Disodium edetate | 0.01 | |
| 13. Aspalathus linearis extract (the one obtained in Production Example 5) | 20.00 | |
| 14. Purified water | Proper amount | |

(Preparation Method)

- A. Ingredients 1 through 8 were heated and dissolved.
- B. Ingredients 9 through 14 were heated and dissolved.
- C. B was added to A, and the mixture was emulsified, stirred, and cooled.
- D. After C was cooled, it was packed in a container and inspected, thus obtaining a product.

[0046] <Formulation Example 6> Milky Lotion

| | (% by weight) |
|--|---------------|
| 1. Polyoxyethylene sorbitan monostearate (20 E.O.) | 2.00 |
| 2. Polyoxyethylene sorbitol tetraoleate (60 E.O.) | 0.50 |
| 3. Oleophilic glycerin monostearate | 1.00 |
| 4. Stearic acid | 0.50 |
| 5. Behenyl alcohol | 0.50 |
| 6. Avocado oil | 4.00 |

| | |
|---|---------------|
| 7. Glyceryl trioctanoate | 4.00 |
| 8. Aspalathus linearis extract (the one obtained in Production Example 1) | 7.00 |
| 9. p-hydroxybenzoate ester | 0.20 |
| 10. 1,3-butylene glycol | 5.00 |
| 11. Xanthan gum | 0.14 |
| 12. Disodium edetate | 0.01 |
| 13. Glycerin | 0.50 |
| 14. Purified water | Proper amount |

(Preparation Method)

- A. Ingredients 1 through 8 were heated and dissolved.
- B. Ingredients 9 through 14 were heated and dissolved.
- C. B was added to A, and the mixture was emulsified, stirred, and cooled.
- D. After C was cooled, it was packed in a container and inspected, thus obtaining a product.

[0047] <Formulation Example 7> Ointment

| | |
|---|---------------|
| | (% by weight) |
| 1. Polyethylene glycol monostearate (40 E.O.) | 2.00 |
| 2. Self-emulsifying glycerin monostearate | 5.00 |
| 3. Stearic acid | 5.00 |
| 4. Behenyl alcohol | 1.00 |
| 5. Liquid paraffin | 10.00 |
| 6. Glyceryl trioctanoate | 10.00 |
| 7. Aspalathus linearis extract (the one obtained in Production Example 2) | 2.00 |
| 8. p-hydroxybenzoate ester | 0.20 |
| 9. 1,3-butylene glycol | 5.00 |
| 10. Disodium edetate | 0.01 |
| 11. Propylene glycol | 1.00 |
| 12. Purified water | Proper amount |

(Preparation Method)

- A. Ingredients 1 through 7 were heated and dissolved.

B. Ingredients 8 through 12 were heated and dissolved.

C. B was added to A, and the mixture was emulsified, stirred, and cooled.

D. After C was cooled, it was packed in a container and inspected, /8
thus obtaining a product.

[0048] <Formulation Example 8> Skin Lotion

| | (% by weight) |
|---|---------------|
| 1. Polyoxyethylene hydrogenated castor oil (60 E.O.) | 8.00 |
| 2. Ethanol | 15.00 |
| 3. Behenyl alcohol | 1.00 |
| 4. p-hydroxybenzoate ester | 0.10 |
| 5. Citric acid | 0.10 |
| 6. Sodium citrate | 0.30 |
| 7. 1,3-butylene glycol | 4.00 |
| 8. Disodium edetate | 0.01 |
| 9. Aspalathus linearis extract (the one obtained in Production Example 3) | 10.00 |
| 10. Purified water | Proper amount |

(Preparation Method)

A. Ingredients 1 through 10 were uniformly stirred and dissolved.

B. A was packed in a container and inspected, thus obtaining a product.

[0049] <Formulation Example 9> Cataplasm

| | (% by weight) |
|---|---------------|
| 1. Polyacrylic acid | 30.00 |
| 2. Aspalathus linearis extract (the one obtained in Production Example 4) | 3.00 |
| 3. Crotamiton | 1.00 |
| 4. Sodium polyacrylate | 7.00 |
| 5. Aluminum chloride | 0.30 |
| 6. Concentrated glycerin | 20.00 |
| 7. Sorbitan monooleate | 1.00 |
| 8. Titanium oxide | 4.00 |
| 9. Purified water | Proper amount |

(Preparation Method)

- A. Ingredients 1 through 3, 7, and 9 were heated and dissolved.
- B. Ingredients 4 through 6 and 8 were heated and dissolved.
- C. B was added to A and stirred to mix them uniformly.
- D. After C was cooled, it was applied to an endermic liniment [sic] and inspected, thus obtaining a product.

[0050] <Formulation Example 10> Hair Cream

| | (% by weight) |
|---|---------------|
| 1. Liquid paraffin | 10.00 |
| 2. Squalane | 7.00 |
| 3. Jojoba oil | 3.00 |
| 4. Solid paraffin | 3.00 |
| 5. Polyoxyethylene cetyl ether | 2.00 |
| 6. Sorbitan sesquioleate | 1.00 |
| 7. Aspalathus linearis extract (the one obtained in Production Example 5) | 0.15 |
| 8. Glycerin | 3.00 |
| 9. Ethylparaben | 0.10 |
| 10. Purified water | Proper amount |

(Preparation Method)

- A. Ingredients 1 through 7 were heated and dissolved.
- A. Ingredients 8 through 10 were heated and dissolved.
- C. After B was added to A, the mixture was stirred and emulsified, after which the emulsion was cooled and inspected, thereby obtaining a product.

[0051] <Formulation Example 11> Hair Tonic

| | (% by weight) |
|---|---------------|
| 1. Poxoxyethylene hydrogenated caster oil | 1.00 |
| 2. Ginger tincture | 1.00 |
| 3. Aspalathus linearis extract (the one obtained in Production Example 1) | 5.00 |

| | | |
|-------------------|---------------|-----------|
| 4. Ethanol | 55.00 | |
| 5. Glycerin | 2.00 | <u>/9</u> |
| 6. Purified water | Proper amount | |

(Preparation Method)

A. Ingredients 1 through 4 were uniformly stirred and dissolved.

B. To A was added gradually a homogeneous solution of 5 in 6, and the mixture was stirred uniformly and inspected, thus obtaining a product.

[0052] <Formulation Example 12> Hair Treatment

| | |
|---|---------------|
| | (% by weight) |
| 1. Avocado oil | 5.00 |
| 2. Squalane | 5.00 |
| 3. Liquid paraffin | 10.00 |
| 4. Stearic acid | 3.00 |
| 5. Glycerin monostearate | 3.00 |
| 6. Lanolin alcohol | 5.00 |
| 7. Aspalathus linearis extract (the one obtained in Production Example 2) | 2.00 |
| 8. 1,3-butylene glycol | 5.00 |
| 9. Triethanolamine | 1.00 |
| 10. Methylparaben | 0.20 |
| 11. Purified water | Proper amount |

(Preparation Method)

A. Ingredients 1 through 6 were heated and dissolved.

A. Ingredients 7 through 11 were heated and dissolved.

C. After B was added to A, the mixture was stirred and emulsified, after which the emulsion was cooled and inspected, thereby obtaining a product.

[0053] <Formulation Example 13> Hair Shampoo

| | (% by weight) |
|---|---------------|
| 1. Vitamin B ₁₂ | 0.05 |
| 2. N-coconut oil fatty acid-L-glutamic acid triethanolamine (30 %) | 40.00 |
| 3. Coconut oil fatty acid diethanolamide | 3.00 |
| 4. Polyoxyethylene dioleic acid methyl glucoside (120 E.O.) | 2.00 |
| 5. p-hydroxybenzoate ester | 0.30 |
| 6. Aspalathus linearis extract (the one obtained in Production Example 3) | 4.00 |
| 7. Purified water | Proper amount |

(Preparation Method)

- A. Ingredients 1 through 4 were uniformly stirred and dissolved.
- B. To the above was added gradually a homogeneous solution of 5 through 7, and the mixture was stirred uniformly and inspected, thus obtaining a product.

[0054] <Formulation Example 14> Hair Rinse

| | (% by weight) |
|---|---------------|
| 1. Cetyl alcohol | 5.00 |
| 2. Liquid paraffin | 5.00 |
| 3. Lanolin | 1.00 |
| 4. Isopropyl myristate | 10.00 |
| 5. 60 % stearyl trimethyl ammonium chloride | 5.00 |
| 6. Polyvinyl alcohol | 0.50 |
| 7. 1,3-butylene glycol | 5.00 |
| 8. Aspalathus linearis extract (the one obtained in Production Example 4) | 6.00 |
| 9. Purified water | Proper amount |

(Preparation Method)

- A. Ingredients 1 through 4 were stirred and dissolved homogeneously.
- B. Ingredients 5 through 9 were heated and dissolved.

C. B was added to A, and the mixture was emulsified, stirred, and cooled.

D. After C was cooled, it was packed in a container and inspected, thus obtaining a product.

[0055] <Formulation Example 15> Hair Essence

| | (% by weight) | <u>/10</u> |
|---|---------------|------------|
| 1. Ethanol | 20.00 | |
| 2. Aspalathus linearis extract (the one obtained in Production Example 5) | 5.00 | |
| 3. 1 % chitosan aqueous solution | 20.00 | |
| 4. Purified water | Proper amount | |

(Preparation Method)

A. Ingredients 1 through 4 were heated and dissolved.

B. After A was cooled, it was packed in a container and inspected, thus obtaining a product.

[0056] <Formulation Example 16> Bath Preparation

| | (% by weight) | |
|---|---------------|--|
| 1. Aspalathus linearis extract (the one obtained in Production Example 6) | 5.00 | |
| 2. Liquid paraffin | 65.00 | |
| 3. Glycerin di-2-heptyl undecanoate | 5.00 | |
| Monostearate [sic] | 2.00 | |
| 4. Polyoxyethylene (2 E.O.) glycerin monostearate | 2.00 | |
| 5. Polyoxyethylene (9 E.O.) monooleate | 2.00 | |
| 6. Polyoxyethylene (3 E.O.) lauryl ether | 5.00 | |
| 7. Vitamin E | 0.20 | |
| 8. Angelica extract | 0.50 | |
| 9. Cnidium extract | 5.00 | |
| 10. Perfume | 1.00 | |
| 11. Dye | Trace amount | |
| 12. Ethanol | Proper amount | |

(Preparation Method)

- A. Ingredients 1 through 10 were mixed and dissolved.
- B. To ingredient 12, 11 was added and dissolved.
- C. B was added to A and stirred homogeneously.
- D. C was packed in soft capsules and inspected, thus obtaining a product.

[0057] <Formulation Example 17> Solid Detergent

| | (% by weight) |
|---|---------------|
| 1. Soap base (beef tallow: coconut oil = 7:3, water content 15 %) | Proper amount |
| 2. Cetanol | 10.00 |
| 3. Dibutylhydroxytoluene | 0.02 |
| 4. Aspalathus linearis extract (the one obtained in Production Example 3) | 5.00 |
| 5. Perfume | 0.50 |
| 6. Dye | Trace amount |

(Preparation Method)

Ingredients 1 through 6 were thoroughly kneaded with a small-size three-roll kneader for laboratory use and subsequently extruded with an extruder for laboratory use whose ferrule was maintained at 45 °C, and the rod-shaped detergent thus obtained was shaped with a hydraulic die for laboratory use.

[0058] <Formulation Example 18> Solid Detergent

| | (% by weight) |
|---|---------------|
| 1. Monosodium N-lauroyl-L-glutamate | 63.70 |
| 2. Monosodium N-oleoyl-L-glutamate | 10.00 |
| 3. Myristyl alcohol | 5.00 |
| 4. Diethanolamide laurate | 2.00 |
| 5. Aspalathus linearis extract (the one obtained in Production Example 4) | 4.00 |
| 6. Disodium edetate | 0.20 |

| | |
|-------------------|-------|
| 7. Titanium oxide | 0.10 |
| 8. Purified water | 15.00 |

(Preparation Method)

Ingredients 1 through 8 were thoroughly kneaded with a small-size three-roll kneader for laboratory use and subsequently extruded with an extruder for laboratory use whose ferrule was maintained at a 50 °C, and the rod-shaped detergent thus obtained was shaped with a hydraulic die for laboratory use.

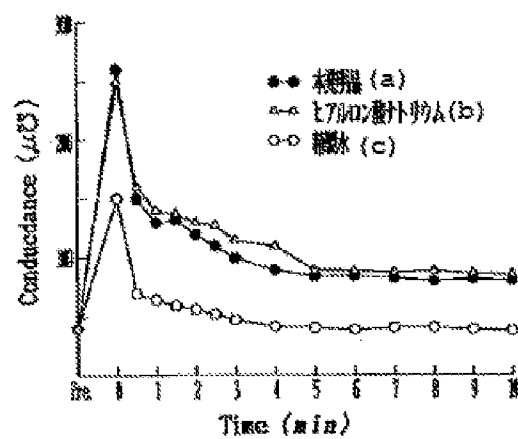
[0059] [Effects of the Invention]

The present invention can provide a cosmetic preparation having an *Aspalathus linearis* extract as the active ingredient, and, since /11 this cosmetic preparation has an excellent active oxygen-eliminating effect and moisturizing effect, its application to the skin is effective for wrinkles and pigmentation, which are skin aging phenomena caused by harmful ultraviolet radiation, and its application to the hair is effective for hair protection for damaged hair [sic].

[Brief Explanation of the Drawing]

[Fig. 1] A graph showing the data obtained by measuring the conductance of the *Aspalathus linearis* extract, which is the active ingredient of the cosmetic preparation of the present invention, and the conductance of hyaluronic acid.

[FIG. 1]



Key: a) invention product; b) sodium hyaluronate; c) purified water.